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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 09/997,638 | 11/28/2001 | Joseph Peck | 5150-53800 | 7474 |

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| EXAMINER | |
|---|---|
| PATEL, RAMESH B | |
| **ART UNIT** | **PAPER NUMBER** |
| 2121 | 3 |

DATE MAILED: 11/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/997,638 | PECK ET AL. | |
| | Examiner | Art Unit | |
| | Ramesh B. Patel | 2121 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *28 November 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 November 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *2*.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

## DETAILED ACTION

1. Claims 1-28 are presented for examination.

### ***Information Disclosure Statement***

2. The information disclosure statement (IDS) submitted on 7/15/2003 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the phrase "such as" and/or "such that" in lines 7-8 renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Regarding claim 10, the phrase "such as" and/or "such that" in line 2 renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Regarding claim 20, the phrase "such as" and/or "such that" in line 4 renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Dependent claims, which are not particularly rejected, are rejected based on the rejected base claim.

## ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-10, 12-20 and 22-28 are rejected under 35 U.S.C. 102(b) based upon a public use or sale of the invention. Claims 1, 3-10, 12-20 and 22-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Browning et al. (US Patent 6,590,366).

As to claims 1, 10 and 20, Browning teaches the invention including a system, a method and a carrier medium which comprising program instructions for controlling

motion of an object, the system, the method and the carrier medium, comprising: a motion device which is operable to move the object, a motion control system which is coupled to the motion device is taught as the control system having control unit which provides control signals to maintain a movable member such as rotor or shaft in the desired position (se, abstract lines 2-5); wherein the motion control system includes a processor and a memory medium, wherein the memory medium stores a motion control software program, wherein the motion control software program is executable by the processor to is taught as real time processing adjust for changes in the dynamics require real time system identification and processing of the compensation algorithm to control aspect of the control system (see, col. 4, lines 37-54): determine a placement of pulses for each of a plurality of time intervals such that the pulses are placed evenly across the plurality of time intervals, wherein the quantity of pulses in each of the time intervals is variable (see, figures 12-17); and generate the pulses across the time intervals according to the determined placement to drive the motion device to move the object is taught as the control system having control unit which provides control signals to maintain a movable member such as rotor or shaft in the desired position (see, abstract and figures 12-18 and col. 4, lines 20-54).

As to claims 3, 12 and 22, Browning teaches the system, the method and the carrier medium, wherein in determining the placement of pulses for each of the plurality of time intervals, the motion control software program is executable by the processor to:

use a delay to place each pulse at an arbitrary location within one of the time intervals (see, col. 2, lines 30-44).

As to claims 4-5, 13-14 and 23-24, Browning teaches the system, the method and the carrier medium, wherein the time intervals are variable in length and wherein the time intervals are fixed in length (see, figures 12-17).

As to claims 6, 15, 17 and 25, Browning teaches the system, the method and the carrier medium, wherein in determining the placement of pulses for each of the plurality of time intervals, the motion control software program is executable by the processor to: change a pulse rate within one of the time intervals (see, abstract and figures 12-18 and col. 4, lines 20-54).

As to claims 7, 16 and 26, Browning teaches the system, the method and the carrier medium, wherein the motion device comprises a stepper motor (abstract and figures19-21).

As to claims 8, 19 and 28, Browning teaches the system, the method and the carrier medium, further comprising: a power drive which is coupled to the motion device and the motion control system, wherein the power drive is operable to: receive the pulses from the motion controller; translate the pulses into power signals; and send the power signals to the motion device is taught as real time processing adjust for changes

in the dynamics require real time system identification and processing of the compensation algorithm to control aspect of the control system (see, col. 4, lines 37-54).

As to claims 9, 118 and 27, Browning teaches the system, the method and the carrier medium, wherein the motion control system comprises: a computer system; and a motion controller is taught as real time processing of the compensation algorithm to control aspect of the control system having processing software or microcode in combination with processing hardware to implement all aspect of the control system (see, abstract and col. 4, lines 37-54).

Claims 2, 11 and 21 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the prior art of the record fails to teach or fairly suggest in combination with other limitations regarding claims 2, 11 and 21, the first rate having a value of 1 plus an integer portion of a desired fractional rate of pulse generation per time interval; and determine a placement of pulses for a second time interval following the first time interval at a second rate having a value of the integer portion of the desired fractional rate of pulse generation.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramesh B. Patel whose telephone number is 703-308-6673. The examiner can normally be reached on M-Th; 7:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anil Khatri can be reached on 703-305-0282. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-9051 for regular communications and 703-305-3718 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Ramesh B. Patel
Primary Examiner
Art Unit 2121

November 25, 2003